OSMP - Hazards for Visitors

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Hazards for OSMP Visitors

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Touch Me Not! Poison Ivy A thriving poison ivy patch is another hazard to watch for on the trail. There are masses of this native plant around. It comes in a small form with leaves the size of your thumb, as well as a deluxe version with leaves bigger than your hand. Most leaves fall somewhere in the middle, but don't ever discount a plant because it's a different size than you're used to.
Also, some people become confused because on Open Space and Mountain Parks, unlike other areas, the plant isn't generally reddish. In fact, during summer, leaves are usually a healthy dark green shade. The plant has one stem with three leaves off the top. Just remember: "leaves of three, leave it be."
Prevention

Remember what it looks like and don't touch it! An oil on the plant is what causes the allergic reaction. The oil is easily transferred from fur to skin so don't hug and kiss your dog after s/he's been romping in the poison ivy! A pre-exposure cream can be purchased over the counter, if you know you'll be at risk.
Treatment

Wash yourself and your clothes, shoes and dog in cold soapy water as soon as possible after exposure.
Animals To Be Aware Of
Lions and Tigers and Bears - Oh My!
Follow this link to learn more about these animals.
Creepy-crawlies: Ticks

Colorado ticks commonly associated with humans are the Rocky Mountain wood tick and the American dog tick . Twenty-eight other species also occur in Colorado. Ticks are blood-feeding parasites that can transmit diseases to humans and other animals. In this area, Colorado tick fever is the most commonly occurring disease related to ticks, whereas Rocky Mountain spotted fever is quite rare. As yet, no human cases of Lyme disease have originated in Colorado. Other diseases transmitted by ticks include tularemia and relapsing fever.
Avoiding ticks:

Tick habitat includes brushy areas along field and woodland edges and grassy areas.

Ticks are most active in spring and early summer. They wait in highly traveled areas, often atop vegetation. Ticks are very sensitive to carbon dioxide and find their prey by detecting CO2 emitted from their breath and skin.

Bug repellent with DEET (most safely applied to clothing) and pants tucked into socks are your best protection against ticks. (Be sure to wash that stuff off when you're done hiking.) Tick checks can be just as effective as repellents because most ticks take several hours to settle in and begin feeding. For example, a Rocky Mountain wood tick won't start feeding for 12 - 24 hours.

Removing a tick:

Barbed mouth parts may remain imbedded causing an infection after the tick is removed. Fortunately, the Rocky Mountain wood tick has fairly short mouth parts and is easily removed. Using blunt tweezers, grasp the tick as close to the skin as possible. If you must use your fingers, grasp the tick through a tissue or thin piece of plastic to avoid the possible transmission of any diseases. Pull slowly and steadily, straight away from the skin taking care not to crush the tick if possible. Disinfect the site and wash your hands when finished. Ineffective methods include covering them with petroleum jelly or touching them with a hot match. Tick paralysis is a rare but serious condition that can occur if a tick stays attached for a long time. Symptoms include difficulty walking, possible limb numbness and difficulty breathing - completely reversible when the tick is removed. See your physician.

Bees & Wasps

Bees will buzz and sting if you swat at them. Generally they don't mistake people for flowers and will not do much more than double check your omnivorous nature before moving on to a better source of pollen. They are extremely important pollinators, responsible for the reproduction of the beautiful wildflowers you enjoy in the meadows and forests, so please let them bee....

Spiders

The western black widow spider, Latrodectus hesperus, the famous shiny black spider with the red hour glass on her belly, is the only poisonous spider found in Boulder County. You won't find dew draped photos of her web on magazine covers. These beautiful creatures build their webs strong but messy. They are actually very shy and prefer to avoid all contact with humans. It is our responsibility to anticipate their presence in favorite spots like woodpiles (and abandoned rodent holes) and behave with appropriate caution. Their mates must be equally cautious. The mate devouring stigma attached to the female is more myth than fact. Careful observation - mood testing, if you will - enables a male to survive mating with a female. All he has to do is test the female's receptivity to his presence, not approaching if she is uninterested or behaves aggressively.

If you are bitten the area will probably become red, and you may or may not feel the bite. The venom is a neurotoxin which induces severe muscle cramping and spasms. The large muscles of the legs and abdomen usually cramp first. The abdomen can become as rigid as a board and the pain is very acute. Some people also experience anxiety, nausea, profuse sweating or increased blood pressure. In severe cases paralysis, convulsions and stupor can occur. Small children and elderly people are the most vulnerable to death, but this rarely occurs.

Treatment

Transport to a hospital as soon as possible where intravenous muscle relaxants can be used to stop the cramping. Antivenin is used in severe cases where muscle relaxants have no effect. The severity of the bite and age of the person determine type and extent of treatment.

Other worrisome spiders: You will hear that the brown recluse spider is also found here. Not true. This is the spider whose bite results in necrotic skin lesions. Much misdiagnosing happens in hospitals, where without the spider in hand, infected bites from other creatures (such as ticks, fleas, bedbugs, mites and assassin bugs) are incorrectly attributed to the brown recluse. The spider's most distinguishing features are the 6 (not 8!) eyes arranged in pairs on the head and an abdomen without color patterns. Some have a violin shaped pigmentation on their head, but several non-poisonous spiders share similar markings, therefore this is not diagnostic of the brown recluse. For more information on recognizing the brown recluse visit Richard Vetter's University of California, Entomology web site at http://dermatology.cdlib.org/DOJvol5num2/special/recluse.html.

Snakes

Of all the species of snakes living in OSMP, only the Prairie Rattlesnake is venomous. It has a look-a-like in the bull snake. The rattler has a more wedge-shaped head than the bull snake, but they both have a similar brown splotched pattern. The rattler has a more distinct frame of white and black around each block of brown. Photo - A rattlesnake minding its own business at the junction of Shadow Canyon and Mesa trails. This snake was in a moist forested drainage and did not rattle when approached.

And of course only the rattler has the famous musical rattling tail, and only the rattler is poisonous. The twist is that the bull snake will mimic the rattler's behavior, coiling and shaking its tail back and forth, making a rattling noise against the dry vegetation when available, if you get too close.

Prevention of bites: Snakes are not inherently aggressive. They bite to defend themselves when feeling threatened. Simply keep your distance and observe them in safety. Remember that they are cold-blooded (exothermic) and seek sunny warm places in the mornings and evenings. Think about this as you blindly reach above your head for a grip on a ledge you can't look onto, on a bright new sunny morning. Hiking only on designated trails reduces your risk of meeting a rattlesnake, and also helps you "Leave No Trace" on Open Space & Mountain Parks.

Treatment:

Stay calm. Often you won't know for sure If the snake was venomous. It's always safest to assume that is was and follow these precautions: Keep the bitten area below your heart and have someone get you help rather than walking out yourself, to keep your pulse and circulation down, slowing the venom's movement to your heart. If rescue is not far away, sit tight. Let them come get you. If you are out in the back country, there are a few more things you can do. Wash the bite with soap and water, because infection is a high risk complicating factor to snake bites. If you have a snakebite kit, use the suction device to remove venom.

DO NOT cut the bite area or use your mouth to try to extract the venom. That adds greatly to the infection potential.

AMAZING Snake Bite Statistics (excerpted from the GORP website Snake Bite FAQ)
Your risk of being bitten by a snake is small, and so too is your risk of dying if bitten. Although there are an estimated 45,000 bites by all snakes in the United States each year, only about 6,680 persons are treated for snake venom poisoning. During the past five years, the number of deaths from snakebite in the United States has ranged between nine and 14. Most of the deaths occurred in children; in the elderly; in untreated, mistreated, or undertreated cases; in cases complicated by other serious disease states; or in members of religious sects who handle serpents as part of their worship and refuse medical treatment. Almost all reported deaths have been attributed to rattlesnakes. In addition, 25% of all pit viper bites are "dry" (no venom injected) and another 15% are so trivial they require only local cleansing and tetanus prophylaxis.

Approximately 75% of all snakebites occur in people aged between 19 and 30 years, 1 - 2% percent occur in women, and less than 1 % occur in blacks. Approximately 40% of all snakebites occur in people who are handling or playing with snakes, and 40% of all people bitten had a blood alcohol level of greater than 0.1%. Sixty-five percent of snakebites occur on the hand or fingers (duh!), 24 percent on the foot or ankle, and 11 percent elsewhere.

So it seems that being a young man who gets drunk and messes about with venomous snakes is highly correlated to being bitten.

Some fascinating facts about snakes: Did you know that snake venom is actually modified saliva? Most have only one lung that runs more than two thirds the length of their body. This helps provide continuous oxygen to the snake when it is swallowing large prey. The mouthful of prey is worked back into the snake's body by rows of backwards facing teeth. Forward and backward motion of the left and right sides of the jaw work the prey down the throat. When the prey is in its mouth, the snake can usually continue breathing through its firm trachea, which is not collapsible.

The opening of the trachea is near the front of the lower jaw and in most snakes can be extended to the edge of the mouth. Many snakes can hold their breath, but it takes time for prey to get past the mouth, sometimes more than an hour. The extended lung in the lower region of the body continues to exchange oxygen with the tissue during this time.

So how does a snake swallow something so much bigger than its own mouth? It disconnects its jaws! Ligaments loosely join the jaws to the skull allowing the top and bottom jaws to separate. The left and right halves of the lower jaw also separate and spread. Stretching is the name of this game. Extremely elastic skin around the mouth and neck and a pleated gullet help this happen.

Weather In the Rocky Mountains

For current weather forecasts visit the National Weather Service at http://www.crh.noaa.gov/den/.
Lightning Can Kill You!
So just what do you do if you're caught outdoors in a thunderstorm? Let's say you're hiking by a lake, on a mountain top or in an open meadow and lightning starts crashing all around. A word of warning: 45% of all lightning casualties occur in open areas. And Open Space and Mountain Parks has plenty of these. Keep reading to learn what to do to avoid getting zapped.
First things first. PAY ATTENTION. Watch the sky for dark, towering clouds, notice the wind. These are warnings that weather is brewing. When you can hear thunder you are 10 miles or less from the storm. The distance traveled between one strike and the next can be as much as 6-8 miles, so it could reach you quickly. Count the number of seconds between the lightning and the next thunder clap, divide by five and that's how many miles away from you the lightning

hit. If the count was 5 seconds, that lightning was only mile away!
Avoiding lightning
Thunder and lightning occurring simultaneously. If your hair stands on end, lightning is about to strike very near you!

DO NOT be the tallest thing around, and DO NOT be under the tallest thing around. Get off the mountain.

Move out of open, exposed areas, and away from water and ALL metal.Move into a clump of shrubs or trees of uniform height.

Crouch or kneel with your hands over your ears to protect your hearing from the thunder.

Spread your group out while maintaining visual contact. Lightning can spread 60 feet across the ground from the strike point.

DO NOT put your hands on the ground.

DO NOT lay down on the ground. That provides a path for the electricity to run right through your heart!
First Aid treatment for the strike victim

Do not become another victim! If the victim is in an area at risk for another strike you must decide when and how to get to them or whether you should move them to a safer place. Remember, you cannot help if you become incapacitated.If the victim has not fallen or been thrown by the lightning, there are rarely major injuries, like fractures, spinal damage or internal bleeding that would prevent safely moving the victim. A person who has been struck by lightning doesn't hold an electrical charge and can't shock another person. Check if the victim is breathing. If not, give mouth to mouth resuscitation immediately, then check the carotid artery in the neck for 20-30 seconds for a pulse. If there is no pulse give cardiac compressions and send someone for help. If you are alone, give CPR and call for help. Survival chances are greatly increased if you administer breaths and compressions immediately. If the victim is burned - most likely where the lightning entered and exited the body - provide first aid as necessary.

For more information on lightning visit http://www.lightningsafety.noaa.gov.
Staying Warm In Summer Rain Storms
Hypothermia in the summer time?
You bet!

Summertime rain can be an every day experience, so plan accordingly. At this altitude the rain is cold and your body temperature can drop rapidly. The optimum temperature for maintaining your body's life-supporting chemical reactions is 98.6 degrees. These reactions slow down as body temperature drops. If body temperature decreases enough, death can result. (On the other extreme these vital chemical reactions cannot occur effectively above 105 degrees.) Signs and Symptoms
Hypothermia results in muscular and cerebral impairment. Stumbling, mumbling, fumbling and grumbling are indicators of changes in motor coordination and levels of consciousness. If your temperature dropped to 96 degrees, you would be shivering uncontrollably. You would be able to perform gross motor movements like walking and talking but have difficulty with more skilled functions such as climbing. If your temperature dropped to between 93 and 95 degrees, you would be dazed, unable to use your hands effectively, shiver violently, have slurred speech, irrational behavior and not care about anything. Between 86 and 92 degrees, episodes of violent shivering would occur with pauses in between, your body would assume the fetal position with rigid muscles and pale skin, dilated pupils and slowed pulse and respirations.
Treatment

Conserve body heat by putting on additional layers of dry clothing. Wear wool, polypropylene or fleece, which provide insulation when wet. Cotton or down have no insulation value when wet. Eat carbohydrates for quick energy and proteins and fats for the longer run and drink plenty of water. Move around to generate more body heat. Warm liquids or foods, additional exercise, heat from a fire or friend who is warm will all help. Avoid alcohol, tobacco and caffeine. Get help before the condition becomes severe. If the situation does become severe, a hypothermia wrap is the best way to re-warm someone when additional food, drink and exercise are not helping. Make sure they are in dry clothes, ideally

polypropylene, insulated from the ground and wrapped in as many layers as possible, aiming for 4 inches of insulation all the way around. "Space" blankets are helpful (and easily portable in a day pack) and plastic wrapped around the outside is important.
NOTE: it is not nearly as efficient to put a hypothermia victim naked into a sleeping bag with another person. A person can re-warm themselves from internally generated heat more efficiently than any sort of external re-warming. In severe hypothermia, the stomach cannot digest solid food. The best fuel is a dilute mixture of sugar in warm water given to the victim every 15 minutes. This means you will have to open the wrap as necessary to assist the person with urinating regularly. Inside the wrap, warmth can be increased by placing warm water bottles or chemical heat packs at the neck, groin, palms of the hands and in the armpits. Be careful not to expose a severely hypothermic victim to extremes of heat.

The May 2001 Snow Storm took many hikers by surprise. Some were caught out over night and suffered from frostbite. Listen to weather forecasts and bring spare clothing, food and water in your pack.
Sun, Friend or Foe?

Without the sun, not a plant would grow, bird sing, lion purr or eagle soar. However, we should be careful about how much we expose ourselves to its life-giving rays. Overexposure to sunlight, elevated body temperatures and decreased fluid levels on hot days can result in heat disorders such as sunburn, heat exhaustion, heatstroke and heat cramps. Normally the body cools itself by sweating. Fluids and salts (which help maintain circulation and brain function) lost through sweating can be replaced by eating lightly salted foods and drinking beverages such as Gatorade, frequently and in small amounts. If you plan on visiting the Rocky Mountains, please prepare yourself for the heat and sunshine. Drink plenty of fluids before, during and after your visit.
Sunburn

Ultraviolet light from the sun causes sunburn (it has nothing to do with how hot the sun feels). Ultraviolet light is very intense in the Rocky Mountains due to the high altitude. Sunscreen, hats and sunglasses are critical to prevent damage to the skin and eyes and are better than the alternative: red, painful skin, blisters and a headache. Treatment

If you do find yourself looking like a boiled lobster, wash with soapy water to remove oils that block pores and prevent the body from cooling properly. There are a variety of soothing ointments to apply to sunburn, but it is best to prevent the damage.
Heat Cramps

Heat cramps are severe muscle spasms caused by excessive sweating and salt (electrolyte) loss during exercise on a hot day. Muscles in the legs, abdomen, hands or feet become hard, painful and difficult to relax.
Treatment
Drink beverages or eat foods that contain salt. Stretching the muscle is the best way to relieve the spasm. If nausea occurs, discontinue eating and drinking and go get help. Prevention is the best treatment. Eat and drink sufficiently before and during the activity.
Heat Exhaustion

Heat exhaustion occurs when there is excessive fluid loss due to sweating. Symptoms include heavy sweating, fatigue, weakness, dizziness and cold, pale and clammy skin, increased pulse and respiration, normal to slightly elevated temperature, possible fainting, vomiting, confusion and anxiety.

Treatment

Lie down in a cool place. Apply wet, cool cloths to the victim's skin. Replace fluids and salt slowly with a dilute water/salt mixture (1/2 teaspoon salt and 1/2 teaspoon baking soda per quart of water). Re-hydrating too quickly can result in nausea and vomiting. It is best to see a physician before resuming physical activity. Heat exhaustion can lead to heat stroke - a life threatening condition if not treated properly
Heat Stroke
This is a life-threatening condition. It occurs when a person can't sweat enough to lower their body temperature due to extreme exposure to heat. Immediate intensive treatment is required to prevent body temperature from rising too high. Rescue must be initiated.

Symptoms

The key symptom of heat stroke is hot skin. Onset of heatstroke can be very rapid. The person will feel like they're

burning up as their body temperature increases rapidly to 104 to 106 degrees. Confusion, disorientation, loss of consciousness and convulsions can occur.

A temperature of 107 degrees can result in permanent damage to the brain and internal organs or cause death.
Treatment
Body temperature must be reduced immediately. Gently move the patient to a cool spot or shade them yourself. Loosen or remove clothing and pour water on their limbs while fanning them to increase evaporation. Immersion in cool water is helpful, but never in cold water. Massage the limbs to help the cooled blood on the surface of the body get back to the heart more quickly. Once the patient starts to cool down monitor their temperature and be careful not to induce hypothermia and shivering. When the person is alert and capable of swallowing, slowly start re-hydration.
High Altitude Effects "High Altitude" is considered land above 5,280 feet. The Mesa Trail and all points west are above this altitude, so watch for affects, particularly if you or your guests are from out of town and lower elevations. At these altitudes your body is trying to function with air that has low oxygen density. Between 8,000 - 10,000 feet, oxygen is about 40-45% less dense than at sea level. This means there is less oxygen available for your lungs to gather from the surrounding air to fuel your body's work. Symptoms

Nausea, shortness of breath, restlessness, insomnia and diarrhea. As you are exercising you may experience: rapid heart rate, headache, nasal congestion, coughing and easy fatigue. If you continue to exercise the shortness of breath magnifies, coughing becomes exaggerated and fluid can accumulate in the lungs.
Treatment
Take it easy, especially the first day. Eat lightly, drink plenty of water and avoid alcohol (which aggravates the affects of altitude) for the first two days. If you find yourself experiencing negative effects while hiking, turn around, go back down and rest. If symptoms persist, call a doctor or emergency room for guidance.

More Visitor Links

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